Claim 6 was rejected under 35 USC § 112 as containing subject matter not described in the specification. The applicant disagrees, nevertheless has amended claim 6 to limit the scope of the claim to advance prosecution of the present case.

Claims 17-25 were rejected under 35 USC § 112 as failing to provide enablement for treatment of diseases associated with an inappropriate immune response *in vivo*. The applicant disagrees, nevertheless has amended claims 17, and 19-25, and has canceled claim 18 to advance prosecution of the present case. Amended claims 17, and 19-25 are now directed towards treatment of an immunecompetent cell.

35 USC § 102

Claims 1-3, 7, 9, and 10 were rejected under 35 USC § 102(b) as being anticipated by Patel et al. (J. Mol. Biol. (1997) 272, 645-664). The applicant disagrees. Among other elements, amended claim 1, and claims 2,3, 7, 9, and 10 by virtue of their dependence on amended claim 1 require that the aptamer has a "...length of between about **12 and 22 nucleic acid units**, inclusive...", and that "...the aptamer **reduces CD28 expression in an activated human T-cell**..." None of these elements is taught by Patel et al. Consequently, claims 1-3, 7, 9, and 10 are not anticipated by Patel et al.

Claims 1-6, 8, and 10 were rejected under 35 USC § 102(b) as being anticipated by Sharma et al. (Anticancer Res. (1996) 16, 61-70). The applicant disagrees. Again, amended claim 1, and claims 2-6, 8, and 10 by virtue of their dependence on amended claim 1 require that "...the aptamer **reduces CD28 expression in an activated human T-cell**..." This element is not taught by Sharma et al. Consequently, claim 1, and claims 2-6, 8, and 10 are not anticipated by Sharma et al.

Claims 1-6, 8, and 10 were rejected under 35 USC § 102(b) as being anticipated by Smith and Feigon (Nature (1992) 356, 164-167). The applicant disagrees. Once more, amended claim 1, and claims 2-6, 8, and 10 by virtue of their dependence on amended claim 1 require that "...the aptamer **reduces CD28 expression in an activated human T-cell**..." This element is not taught by Smith and Feigon. Consequently, claim 1, and claims 2-6, 8, and 10 are not anticipated by Smith and Feigon.

35 USC § 103

Claims 1-5, 7-10, 11, 13, and 16 were rejected under the judicially created doctrine of obviousness-type double patenting. The applicant disagrees, nevertheless a terminal disclaimer over U.S. Pat. No. 5,932,556 to overcome the Examiner's rejection is being filed concurrently with the present response.

Allowable Subject Matter

The applicant acknowledges the Examiner's statement of allowability of claims 12, 14, and 15.

ATTACHED MARKED-UP VERSION OF CHANGES

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE".

REQUEST FOR ALLOWANCE

Claims 1-4, 6-17, and 19-25 are pending in this application. The applicant requests allowance of all pending claims.

Respectfully submitted,

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Dated: September 18, 2002 By: _____

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VERSIONS WITH MARKING TO SHOW CHANGES MADE

In the Claims

1. (Amended) An aptamer having a length of between about 12 and 22 nucleic acid units, inclusive, and having a sequence which includes at least two G-rich regions selected from the group consisting of GGnG, GGGG, GnGG, nGGG and GGGn, where G is guanidine and n is any nucleotide, and wherein the aptamer reduces CD28 expression in an activated human T-cell.

2. (Amended) The aptamer of claim 1 wherein at least two of the at least two regions are separated by [less than] two to seven nucleotides, inclusive.

5. Canceled.

6. (Amended) The aptamer of claim [2] 1 wherein the aptamer competes for a nucleic acid binding site of [immune regulatory protein is selected from the group of] SP1 [, NFKB, EGR1 and AP2].

17. (Amended) A method of treating [modulating] an immunecompetent cell [system response in a patient], comprising administering to the [patient] cell an aptamer according to claim 1 at a concentration effective to reduce CD28 expression.

18. Canceled.

19. (Amended) The method of claim [18] 17 wherein the immune competent cell is in a patient suffering from [condition comprises] a graft vs host response.

20. (Amended) The method of claim [18] 17 wherein the immune competent cell is in a patient suffering from [condition comprises] an autoimmune disease.

21. (Amended) The method of claim 20 wherein the [condition] autoimmune disease comprises rheumatoid arthritis.

22. (Amended) The method of claim 20 wherein the [condition] autoimmune disease comprises multiple sclerosis.

23. (Amended) The method of claim 20 wherein the [condition] autoimmune disease comprises lupus erthymatosis.

24. (Amended) The method of claim 20 wherein the [condition] autoimmune disease comprises insulin dependent diabetes mellitus.

25. (Amended) The method of claim 20 wherein the [condition] autoimmune disease comprises psoriasis.